

RECEIVED

JUL 05 2001
FBI CENTER 1600/2900

| | | |
|--|------------------------|-----------------|
| Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | Complete if Known | |
| | Application Number | 09/478,188 |
| | Filing Date | January 5, 2000 |
| | First Named Inventor | B n Shen |
| | Group Art Unit | 1652 |
| | Examiner Name | Kathleen Kerr |
| | Attorney Docket Number | 407T-896010US |

| U.S. PATENT DOCUMENTS | | | | | | |
|-----------------------|-------------|----------------------|-------------------------|--|--|---|
| Examiner Initials | Cite No. | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal |
| | | Number | Kind Code (if known) | | | |
| | | | | | | |
| | | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|-------------|-------------------------|--------|-------------------------|--|--|---|---|
| Examiner Initials | Cite No. | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T |
| | | Office | Number | Kind Code (if known) | | | | |
| | | | | | | | | |

| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | | | | |
|---|----------|---|--|--|------|
| Examiner Initials | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | | T |
| KK | 1 | Ando et al. (1998) "A New Non-Protein Enediynes Antibiotic N1999 A2: Unique Enediynes Chromophore Similar to Neocarzinostatin and DNA Cleavage" Tetra. Letts., 39: 6495-6498 | | | 6498 |
| KK | 2 | August et al. (1998) "Biosynthesis of the ansamycin antibiotic rifamycin: deductions from the molecular analysis of the <i>rif</i> biosynthetic gene cluster of <i>Amycolatopsis mediterranei</i> S699" Chem. Biol. 5: 69-79 | | | |
| KK | 3 | Bierman et al. (1992) "Plasmid cloning vectors for the conjugal transfer of DNA from <i>Escherichia coli</i> to <i>Streptomyces</i> spp" Gene 116: 43-60 | | | 49 |
| KK | 4 | Cane et al. (1998) "Harnessing the Biosynthetic Code: Combinations, Permutation, and Mutations" Science 282: 63-68 | | | |
| KK | 5 | Decker et al. (1996) "A general approach for cloning and characterizing dNDP-glucose dehydratase genes from actinomycetes" FEMS Lett. 141: 195-201 | | | |
| KK | 6 | Edo et al. (1985) "The Structure of Neocarzinostatin Chromophore Possessing a Novel Bicyclo[7,3,0]dodecadiene system" Tetrahedron Lett. 26: 331-340 | | | 334 |
| KK | 7 | Hensens et al. (1989) "Biosynthesis of NCS Chrom A, the Chromophore of the Antitumor Antibiotic Neocarzinostatin" J. Am. Chem. Soc. 111: 3295-3299 | | | |
| KK | 8 | Hopwood (1997) "Genetic Contributions to Understanding Polyketide Synthases" Chem. Rev. 97: 2465-2497 | | | |
| KK | 9 | Hu et al. (1994) "Repeated polyketide synthase modules involved in the biosynthesis of a heptaine macrolide by <i>Streptomyces</i> sp. FR-008" Mol. Microbiol. 14: 163-172 | | | |
| KK | 10 | Hu et al. (1988) "A New Macromolecular Antitumor Antibiotic, C-1027" J. Antibiot. 41:1575-1579 | | | |
| KK | 11 | Hutchinson and Fuji. (1995) "Polyketide Synthase Gene Manipulation: A Structure-Function Approach in Engineering Novel Antibiotics" Ann. Rev. Microbiol. 49: 201-38 | | | |

| | | | |
|-----------------------|----------------------|--------------------|---------|
| Examiner Signature | <i>Kathleen Kerr</i> | Date Considered | 3/15/02 |
|-----------------------|----------------------|--------------------|---------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



RECEIVED

TECH CENTER 1600/2900

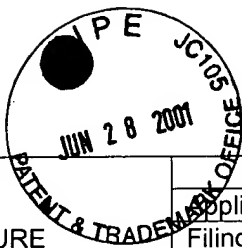
JUL 05 2001

| | | |
|--|------------------------|-----------------|
| Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | Complete if Known | |
| | Application Number | 09/478,188 |
| | Filing Date | January 5, 2000 |
| | First Named Inventor | Ben Shen |
| | Group Art Unit | 1652 |
| | Examiner Name | Kathleen Kerr |
| | Attorney Docket Number | 407T-896010US |

| | | |
|----|----|---|
| KK | 12 | Iida et al. (1993) "Synthesis and Absolute Stereochemistry of the Aminosugar Moiety of Antibiotic C-1027 Chromophore" Tetrahedron Lett. 34: 4079-4082 |
| KK | 13 | Ikemoton et al. (1995) "Calicheamicin-DNA complexes: Warhead alignment and saccharide recognition of the minor groove" Proc. Natl. Acad. Sci. USA 92:10506-10510 |
| KK | 14 | Katz and Donadio (1993) "Polyketide Synthesis: Prospects for Hybrid Antibodies" Ann. Rev. Microbiol. 47: 875-912 |
| KK | 15 | Lam et al. (1993) "Biosynthesis of Esperamicin A ₁ , an Eneidyne Antitumor Antibiotic" J. Am. Chem. Soc. 115: 12340-12345 |
| KK | 16 | Lee et al. (1998) "Identification of Non-Heme Diiron Proteins That Catalyze Triple Bond and Epoxy Group Formation" Science 280: 915-918 |
| KK | 17 | Mao, et al. (1997) "isolation and Identification of Berberine from Cell Cultures of <i>Coptis chinensis</i> " Chinese J. Biotechnol. 13: 195-199 |
| KK | 18 | Minami et al. (1993) "Structure of an Aromatization Product of C-1027 Chromophore" Tetrahedron Lett. 34: 2633-2636 |
| KK | 19 | Myers et al. (1997) "A comparison of DNA Cleavage by Neocarzinostatin Chromophore and Its Aglycon: Evaluating the Role of the Carbohydrate Residue" J. Am. Chem. Soc. 119: 2965-2972 |
| KK | 20 | Okuno et al. (1994) "Computer Modeling Analysis for Eneidyne Chromophore-Apoprotein Complex of Macromolecular Antitumor Antibiotic C-1027" J. Med. Chem. 37: 2266-2273 |
| KK | 21 | Otani et al. (1991) "Purification and Primary Structure of C-1027-AG, a Selective Antagonist of Antitumor Antibiotic C-1027, from <i>Streptomyces globisporus</i> " Agri. Biol. Chem. 55: 407-417 |
| KK | 22 | Rao et al. (1987) "Cosmid Shuttle Vectors for Cloning and Analysis of <i>Streptomyces</i> DNA" Methods Enzymol. 153: 166-198 |
| KK | 23 | Sakata et al. (1992) "Cloning and Nucleotide Sequencing of the Antitumor Antibiotic C-1027 Apoprotein Gene" Biosci. Biotech. Biochem. 56: 1592-1595 |
| KK | 24 | Shen et al. (1999) "Bleomycin Biosynthesis in <i>Streptomyces verticillus</i> ATCC15003: A Model of Hybrid Peptide and Polyketide Biosynthesis" Bioorg. Chem. 27: 155-171 |
| KK | 25 | Sievers et al. (1999) "Selective Ablation of Acute Myeloid Leukemia Using Antibody-Targeted Chemotherapy: A Phase I Study of an Anti-CD33 Calicheamicin Immunoconjugate" Blood 93: 3678-3684 |
| KK | 26 | Sommer et al. (1997) "Genetic and Biochemical Characterization of a New Extracellular Lipase from <i>Streptomyces cinnamomeus</i> " Appl. Environ. Microbiol. 63: 3553-3560 |
| KK | 27 | Spaink et al. (1991) "A novel highly unsaturated fatty acid moiety of lipo-oligosaccharide signals determines host specificity of <i>Rizobium</i> " Nature 354: 125-130 |
| KK | 28 | Stassinopoulos et al. (1996) "Solution Structure of a Two-Base DNA Bulge Complexed with an Eneidyne Cleaving Analog" Science 272: 1943-1946 |
| KK | 29 | Takiff et al. (1996) "Efflux pump of the proton antiporter family confers low-level fluoroquinolone resistance in <i>Mycobacterium smegmatis</i> " Proc. Natl. Acad. Sci. USA 93: 362-366 |
| KK | 30 | Thorson et al. (1999) "Eneidyne Biosynthesis and Self-Resistance: A Progress Report" Bioorg. Chem., 27: 172-188 |
| KK | 31 | Tokiwa et al. (1992) "Biosynthesis of Dynemicin A, a 3-Ene-1,5-diyne Antitumor Antibiotic" J. Am. Chem. Soc. 114: 4107-4110 |
| KK | 32 | Xu et al. (1997) "Eneidyne C1027 Induces the Formation of Novel Covalent DNA Interstrand Cross-Links and Monoadducts" J. Am. Chem. Soc. 119: 1133-1134 |

| | | | |
|--------------------|----------------------|-----------------|---------|
| Examiner Signature | <i>Kathleen Kerr</i> | Date Considered | 3/15/02 |
|--------------------|----------------------|-----------------|---------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



RECEIVED

TECH CENTER 1600/2900

JUL 05 2001

| | | |
|--|------------------------|-----------------|
| Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | Complete if Known | |
| | Application Number | 09/478,188 |
| | Filing Date | January 5, 2000 |
| | First Named Inventor | Ben Shen |
| | Group Art Unit | 1652 |
| | Examiner Name | Kathleen Kerr |
| | Attorney Docket Number | 407T-896010US |

| | | | |
|----|----|--|--|
| KK | 33 | Yoshida et al. (1993) "Structure and Cycloaromatization of a Novel Eneidyne, C-1027 Chromophore" Tetrahedron Lett. 34: 2637-2640 | |
| KL | 34 | Zhen et al. (1989) "A New Macromolecular Antitumor Antibiotic, C-1027" J. Antibiot. 42: 1294-1298 | |

| | | | |
|--------------------|----------------------|-----------------|---------|
| Examiner Signature | <i>Kathleen Kerr</i> | Date Considered | 3/15/02 |
|--------------------|----------------------|-----------------|---------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.